

REMARKS

Claims 1-90 are pending in the application. Claims 22-90 are withdrawn from consideration. In the present amendment, claims 1 and 11 have been amended to explicitly recite that the bipolar article as a whole has an overall form that is not cylindrical or prismatic. This amendment is supported by the specification, for example, at page 3, lines 9-11.

Claims 1-21 were rejected in the Final Office Action of October 4, 2007. Applicants traverse all rejections and respectfully request reconsideration of the claims in light of the remarks and amendments made in this Response.

Interview Summary

Applicants thank the Examiner O'Neill and her primary examiner, Examiner Ruthkosky, for the courtesy of a telephone interview on January 22, 2008 with the undersigned and Dr. Rajesh Nair. The claims under examination were discussed in view of the Chiang reference cited in the Final Office Action. The Examiner suggested that Applicants amend the claims to further emphasize that the bipolar article has an overall form that is not cylindrical or prismatic. The Examiner indicated that such amendments and arguments as submitted herewith should be helpful in overcoming the outstanding prior art rejection.

Rejection under 35 U.S.C. §102(e)

Claims 1-21 were rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Chiang et al., US 2003/0099884, hereafter "Chiang." Applicants respectfully traverse this rejection.

Applicants' independent claims 1 and 11 are directed to bipolar articles having an arbitrary form factor. The article has a bipolar structure having an anode, a cathode, and an electrolyte in contact with and separating the anode and cathode. The article includes a cathode current collector that is in electronic communication with the cathode, and an anode current collector that is in electronic communication with the anode. The claims have been amended herein to recite that the bipolar article as a whole has an overall form that is not cylindrical or prismatic.

Chiang, which discloses battery structures including interpenetrating network structures (Abstract), does not anticipate claims 1-21 under § 102(e). Chiang's filing date is July 26, 2002, the same date as Applicants' priority date. Therefore, Chiang cannot serve as § 102(e) prior art with respect to Applicants' claims 1-21 unless Chiang's priority applications filed prior to July 26, 2002 properly support any subject matter that forms the basis of the rejection. (MPEP § 706.02 (f)(1)). Chiang claims priority to provisional application 60/308,360, filed July, 27, 2001 ("Provisional app.") and is a continuation-in-part of U.S. Ser. No. 10/021,740, filed October 22, 2001. However, these priority applications do not disclose a bipolar article wherein the ***bipolar article as a whole has an overall form that is not cylindrical or prismatic*** as claimed. Although Applicants presented this argument in the last Response, the Final Office Action does not identify any specific passages or support in Chiang's priority documents that disclose a bipolar article as a whole having an overall form that is not cylindrical or prismatic as claimed.

Chiang's priority document 60/308,360 discloses "assembly of devices using dispersion-forces, specifically applied to bipolar devices." (Provisional app.: Page 8, lines 14-15) The provisional application explains, "[t]he present invention is directed to self-organization, and, in one aspect, to the selection of materials that exert attracting and repelling forces to produce self-organizing structures, specifically, self-organizing bipolar devices." (Provisional app.: Page 8, lines 1-3) However, Chiang's priority documents do not teach that these self-organizing systems produce bipolar articles that ***as a whole have an overall form that is not cylindrical or prismatic*** as recited in Applicants' claims.

Similarly, Chiang's priority document 10/021,740, published as US 2003/0082446, discloses electrode structures that are "reticulated," for example, first and second electrodes having complementary sets of protuberances that extend into an electrolyte. (e.g., Paragraphs 17-19 of Publication) However, in such structures it is the electrodes or the interface between electrodes that are disclosed as having an atypical shape, not the bipolar article as a whole. Similarly, the Office Action refers to Figures 2A-D of Chiang itself as depicting convexities or protrusions in electrodes that vary across the length or width of the article. (Office Action, Page 3) Again, these Figures illustrate electrode structures in which the interior interface between electrodes has an atypical, reticulated form. They do not show a ***bipolar article as a whole that is not cylindrical or prismatic*** as claimed.

In response to Applicants' arguments presented in the correspondence dated July 23, 2007, the Office Action states that "Chiang et. al. discloses a bipolar device having an arbitrary form factor because it is self-organized and the topologies or morphologies of interpenetrating structures include being strut-like, sponge-like, or cellular, micellar, lamellar, isotropic or anisotropic." (Office Action, page 6) Even disregarding the fact that this reference again is to Chiang itself, without identification of support in the priority documents, Applicants respectfully disagree. Earlier portions of the same paragraph of Chiang cited in the Office Action (paragraph [0122]) disclose that "an interpenetrating network is formed by self organization of particles," and that "[t]he ability to organize particles of cathodic and anodic materials in such small volumes imparts a complex structure to the components of the device and provides a highly interpenetrating structure" (emphasis added). Thus, this passage again describes electrodes and the interface between them having varying interpenetrating topologies or morphologies, rather than suggesting an arbitrary form factor for the bipolar article as a whole.

For the above reasons, Applicants respectfully submit that claims 1 and 11, and their dependent claims 2-10 and 12-21, are not anticipated by Chiang, and respectfully request that this rejection under § 102(e) be withdrawn.

Conclusion

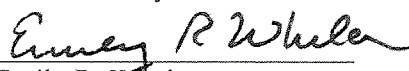
In view of the amendments and arguments set forth above, Applicants respectfully submit that the rejections contained in the Final Office Action mailed on October 4, 2007 have been overcome, and that the pending claims are in condition for allowance.

Applicants hereby petition for a one-month extension of time to respond to the Office Action of October 4, 2007. Please charge the \$60.00 fee for this purpose, as well as the \$405.00 fee for the present Request for Continued Examination, to our Deposit Account No. 08-0219. No other fees are believed to be due.

The Examiner is encouraged to telephone the undersigned at the number listed below in order to expedite the prosecution of this application.

Respectfully submitted,

Dated: 2/4/08


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